

## Description and Rating

### HIGH-FREQUENCY TRIODE

#### GENERAL DESCRIPTION

Principal Application: The 6J4 is a miniature high-mu triode designed for use as a grounded-grid amplifier at frequencies up to approximately 500 megacycles. The tube features an extremely high transconductance of 12000 micromhos and permits

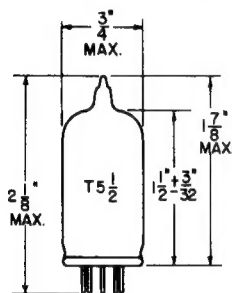
Cathode: . . . . . Coated Unipotential  
Heater Voltage (A-C or D-C). . . . . 6.3 Volts  
Heater Current . . . . . 0.4 Ampere  
Envelope: . . . . . T-5½ Glass  
Base: . . . . . E7-1, Miniature Button 7-Pin  
Mounting Position: . . . . . Any

operation with a high signal-to-noise ratio. Three terminals on the grid provide effective grounding with a minimum of reactance. The 6J4 may also be used in conventional triode circuits with an ungrounded grid.

Direct Interelectrode Capacitances: (Approx)#

Plate to Cathode and Heater (Max)	0.24	μμf
Grid to Cathode and Heater . . . . .	5.5	μμf
Grid to Plate . . . . .	4.0	μμf
Heater to Cathode . . . . .	3.2	μμf

#### PHYSICAL DIMENSIONS

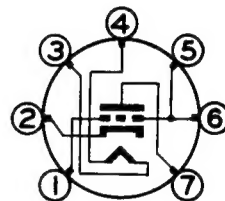


RMA 5-2

#### TERMINAL CONNECTIONS

Pin 1 - Grid  
Pin 2 - Cathode  
Pin 3 - Heater  
Pin 4 - Heater  
Pin 5 - Grid  
Pin 6 - Grid  
Pin 7 - Plate

#### BASING DIAGRAM



RMA 7BQ  
BOTTOM VIEW

#### DESIGN CENTER VALUES:

Plate Voltage . . . . .	150	Volts
Plate Dissipation . . . . .	2.25	Watts
Plate Current . . . . .	20	Milliamperes
D-C Heater-Cathode Voltage . . . . .	90	Volts
Grid Circuit Resistance . . . . .	0.25	Megohm

#### CHARACTERISTICS AND TYPICAL OPERATION

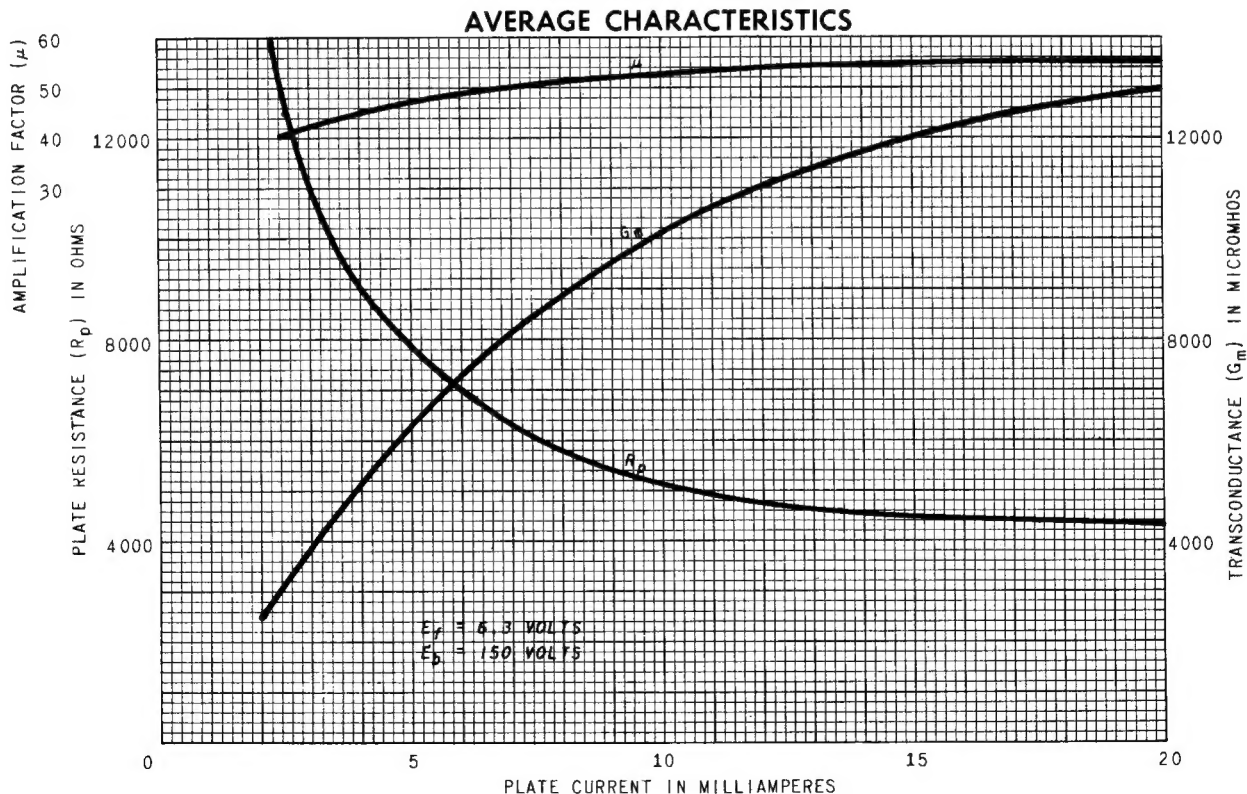
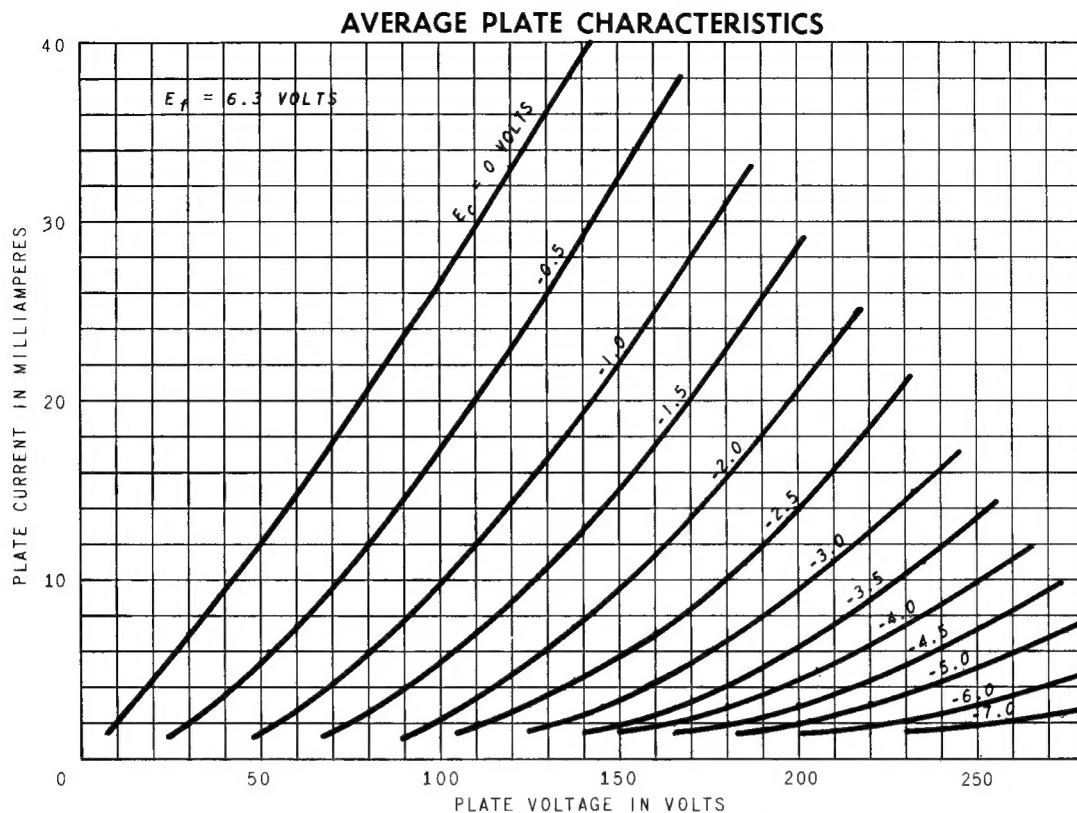
##### GROUND-GRID CLASS A<sub>1</sub> AMPLIFIER

Plate Voltage . . . . .	100	150	Volts
Cathode Bias Resistor* . . . . .	100	100	Ohms
Amplification Factor . . . . .	55	55	
Plate Resistance . . . . .	5000	4500	Ohms
Transconductance . . . . .	11000	12000	Micromhos
Plate Current . . . . .	10	15	Milliamperes

# With external shield #316 connected to grid.

\* Operation with fixed bias is not recommended; in addition, the cathode bias resistor should always be suitably by-passed.

Note: When the 6J4 is used in grounded-grid operation at high frequencies, all three grid terminals should be grounded to minimize the effects of grid-lead inductance.



Tube Divisions, Electronics Department



Schenectady, N. Y.